

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claim 1 (Currently Amended): An air-conditioning system

comprising:

a plurality of indoor units and a plurality of outdoor units each including a compressor, ~~said air-conditioning system being operatively controlled by transmitting and receiving the~~ to transmit and receive operation data ~~between each of said indoor units and the corresponding one of said outdoor units;~~

an outdoor transmission/receiving unit included in each of said outdoor units, for transmitting by superposing the operation data on an outdoor power line for supplying power to said outdoor units and receiving said operation data superposed on said outdoor power line;

an indoor transmission/receiving unit included in each of said indoor units, for transmitting by superposing the operation data on an indoor power line for supplying power to said indoor units and receiving said operation data superposed on said indoor power line;

an outdoor conversion unit for transmitting a radio signal produced by converting said operation data superposed on said outdoor power line into ~~[[a]]the~~ radio signal, and receiving and superposing ~~[[said]]a~~ radio signal on said outdoor power line; and

an indoor conversion unit for transmitting a radio signal produced by converting said operation data superposed on said indoor power line into ~~[[a]]the~~

radio signal and receiving and superposing ~~[[said]]~~a radio signal on said indoor power line,

wherein an identification signal is assigned to each of said outdoor and indoor conversion units, and said radio signal contains operation data and a flag information representing the identification signal, and

wherein each of said outdoor and indoor conversion units determines whether a received radio signal is required to be received from a desired conversion unit based on the identification signal contained in the received radio signal, and when the received radio signal is required to be received from the desired conversion unit, samples and converts the received radio signal into a power-superposed signal.

Claim 2 (Currently Amended): An air-conditioning system according to Claim 1, ~~wherein said radio signal contains said operation data and an identification signal for determining whether said operation data is required to be received or not~~each of the outdoor conversion unit and the indoor conversion unit includes a radio signal transmission/reception module for wireless transmission/reception of the radio signal including operation data between the outdoor unit and the corresponding indoor unit.

Claim 3 (Currently Amended): An air-conditioning system according to Claim 1, ~~wherein~~further comprising a remote controller for setting the temperature, said remote controller including ~~includes a~~ transmission/receiving unit for receiving said radio signal.

Claim 4 (Currently Amended): An air-conditioning system according to Claim 1, ~~wherein said radio signal is received by~~further comprising a portable telephone provided to receive said radio signal and to provide a visual display of and said operation data ~~are displayed on said portable telephonethereon.~~

Claim 5 (Currently Amended): An air-conditioning system according to Claim 1, ~~wherein a radio signal is transmitted from~~further comprising a portable telephone provided to transmit a radio signal to be and received by a selected one of said outdoor conversion unit and said indoor conversion unit thereby to control the operation of said air-conditioning system.

Claim 6 (Currently Amended): An air-conditioning system according to Claim 1, wherein said radio signal contains said operation data, ~~and a source address and a destination address.~~

Claim 7 (Currently Amended): An air-conditioning system according to Claim 1, wherein ~~said radio signal contains said operation data and an identification signal for determining whether said operation data is required to be received or not, and upon determination that said operation data is required to be received according to said identification signal,~~ said outdoor conversion unit and said indoor conversion unit sample said received radio signal to reproduce operation data and convert said ~~radio signal~~operation data into a power-superposed signal after shaping a waveform of said operation data.

Claim 8 (Currently Amended): An air-conditioning system according to Claim 1, wherein said operation data is received as a radio signal by a portable telephone, ~~said operation data being and is stored in said portable telephonetherein.~~

Claim 9 (New): An air-conditioning system according to Claim 1, wherein said operation data include the outdoor air temperature, the temperature of gas discharged from the compressor, the condensation temperature, the high/low pressure, the drive frequency, the current value of the compressor, the opening degree of expansion valves and capability codes.

Claim 10 (New): An air conditioning system comprising:

- one or more outdoor units provided with an outdoor power line for supplying power thereto, each having a compressor mounted thereon to generate compressed air;
- one or more indoor units arranged to handle compressed air received from the one or more outdoor units, and provided with an indoor power line for supplying power thereto;
- an outdoor transmission/reception unit included in each of the one or more outdoor units, to transmit and receive operation data superposed on the outdoor power line;
- an indoor transmission/reception unit included in each of the one or more indoor units, to transmit and receive operation data superposed on the indoor power line;

an outdoor conversion unit coupled to the outdoor power line, to convert operation data superposed on the outdoor power line into a radio signal for wireless transmission, and to receive a radio signal, via wireless communication, and superpose operation data included in the radio signal received on the outdoor power line; and

an indoor conversion unit coupled to the indoor power line, to receive the radio signal transmitted from the outdoor conversion unit, via wireless communication, and superpose operation data included in the radio signal on the indoor power line, and to convert operation data superposed on the indoor power line into a radio signal for wireless transmission to the outdoor conversion unit;

wherein a unique ID is assigned to each of the outdoor conversion unit and the indoor conversion unit, and the radio signal transmitted from one of the outdoor conversion unit and the indoor conversion unit includes operation data and flag information representing the unique ID, and

wherein each of the outdoor conversion unit and the indoor conversion unit receives and processes the radio signal based on the unique ID assigned thereto.

Claim 11 (New): The air conditioning system according to Claim 10, wherein each of the outdoor conversion unit and the indoor conversion unit includes a radio signal transmission/reception module for wireless transmission/reception of the radio signal including operation data between the outdoor unit and the corresponding indoor unit.

Claim 12 (New): The air conditioning system according to Claim 10, further comprising a centralized controller arranged to provide centralized control of the one or more outdoor units and indoor units based on the radio signal transmitted from one of the outdoor conversion unit and the indoor conversion unit.

Claim 13 (New): The air conditioning system according to Claim 10, wherein the operation data include, but not limited thereto, the outdoor air temperature, the temperature of gas discharged from the compressor, the condensation temperature, the high/low pressure, the drive frequency, the current value of the compressor, the opening degree of expansion valves and capability codes of the air conditioning system.

Claim 14 (New): The air conditioning system according to Claim 10, further comprising a remote controller for setting the operation data including, but not limited to, selected ones of the outdoor air temperature, the temperature of gas discharged from the compressor, the condensation temperature, the high/low pressure, the drive frequency, the current value of the compressor, the opening degree of expansion valves and capability codes of the air conditioning system.

Claim 15 (New): The air conditioning system according to Claim 14, wherein the remote controller includes a radio signal transmission/reception module for wireless transmission/reception of the radio signal including operation data between the outdoor unit and the corresponding indoor unit

Claim 16 (New): The air conditioning system according to Claim 10, further comprising a portable telephone to receive the radio signal transmitted from one of the outdoor conversion unit and the indoor conversion unit, the portable telephone providing a visual display of operation data, including the desired outdoor/indoor unit, the set temperature, the intake air temperature, the blowout air temperature, the indoor heat exchange temperature, the remote sensor temperature and the atmospheric temperature and other operation modes.